SHORT REPORT

Occipital Artery Pseudoaneurysm: A Rare Complication of Head Trauma

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Introduction: Occipital artery pseudoaneurysm is an extremely rare complication of head trauma with fewer than 15 reported cases in the literature.
Report: A 91-year-old man presented with a pulsatile, bleeding occipital mass 4 weeks following a fall. A clinical diagnosis of occipital artery pseudoaneurysm was made. The lesion was treated with surgery under local anaesthetic without complication.
Discussion: Occipital artery pseudoaneurysm following trauma can be diagnosed clinically or radiologically. Proposed treatments include conservative management, surgery, or endovascular treatment. In our case we made a clinical diagnosis and found surgery under local anaesthetic to be a very effective treatment.

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INTRODUCTION

Occipital artery pseudoaneurysm is an extremely rare phenomenon, with only 15 cases reported in the literature.[1] Most cases are caused by trauma,[1] although there are also reports of spontaneous occurrence.[2]

The diagnosis can be made clinically or with the aid of duplex ultrasonography, computed tomography (CT)/magnetic resonance angiography, catheter angiography, or histopathology following excision.[1]

Proposed treatment modalities include conservative management,[3] surgery,[1] or endovascular occlusion.[4]

REPORT

A 91-year-old man presented to the emergency department with scalp bleeding following a mechanical fall while gardening. He had no significant background history and was on no regular medications.

His Glasgow Coma Score was 15 and he had no focal neurological deficits. He had a laceration over the left occiput. CT of his brain revealed a subcutaneous haematoma with no underlying fracture or intracranial abnormality.

His laceration was closed in the emergency department and he was discharged with head injury advice.

He presented 2 weeks later with recurrent bleeding from the site. Haemostasis was achieved with sutures, and he was discharged without being referred to the vascular service.

He returned again 2 weeks later with recurrent bleeding and was referred to the vascular service on call.

Examination revealed a pulsatile mass over his left occiput of 1 cm diameter (Fig. 1). Compression of the occipital artery proximal to the lesion caused the pulsation to stop.

A clinical diagnosis of occipital artery pseudoaneurysm was made and he was brought to theatre. Under local anaesthesia, the occipital artery was identified, ligated, and divided proximal and distal to the lesion. The lesion was then excised and the wound was closed.

He was discharged well the following day with no further bleeding.

DISCUSSION

Diagnosis can be difficult, and multiple diagnostic approaches have been discussed in the literature.[1] We made a clinical diagnosis on the basis of the history and physical examination. We excluded other complications of head injury with CT.

Treatments discussed in the literature have been varied, although all published cases report favourable results. Several studies have proposed non-operative treatment. This

Figure 1. Pulsatile mass over left occiput.

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seems to be a reasonable option in cases where the aneurysm is already thrombosed, if it is very small, or if there are patient factors which may preclude active intervention.[3]

The surgical approach is similar to that for superficial temporal artery pseudoaneurysms. These are much more common lesions and their surgical treatment is well described.[4]

Endovascular treatment has been successfully pioneered in one study.[5] A catheter is introduced into the occipital artery and the aneurysm is occluded endovascularly.

Due to the rarity of the condition, there is very little evidence with which to compare different treatment modalities. In our case, we found surgical intervention under local anaesthetic to be a highly effective treatment.

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CONFLICT OF INTEREST

None.

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